Amendments to the Claims:

1-60. (Canceled).

61. (Original) A method for reading digital watermark data from digital data contents in which each bit of digital watermark data is embedded a plurality of times, said method comprising the steps of:

receiving digital data contents;

reading a digital watermark sequence from said digital data contents;

performing soft decision in code theory by assigning weights to said digital watermark sequence with a weighting function; and

reconstituting and generating digital watermark data from said digital watermark sequence.

62. (Original) The method as claimed in claim 61, wherein said weighting function is a distribution function obtained by a method comprising the steps of:

dividing first digital data contents into one or a plurality of first block data;

dividing second digital data contents into one or a plurality of second block data, said second digital data contents being obtained by manipulating said first digital data contents with a predetermined manipulation method;

transforming said first block data and said second block data into first frequency coefficients and second frequency coefficients respectively by applying an orthogonal transform; and

obtaining distribution of difference values between said first frequency coefficients and said second frequency coefficients, said distribution function being an approximation of said distribution,

wherein said weights are assigned to said digital watermark sequence according to values of said distribution function.

63. (Original) The method as claimed in claim 61, wherein said weighting function is a distribution function obtained by a method comprising the steps of:

dividing first digital data contents into one or a plurality of first block data;

dividing second digital data contents into one or a plurality of second block data, said

second digital data contents being obtained by manipulating said first digital data contents with a predetermined manipulation method;

transforming said first block data and said second block data into first frequency coefficients and second frequency coefficients respectively by applying an orthogonal transform; and

obtaining said distribution function on the basis of a theory if distribution of difference values between said first frequency coefficients and said second frequency coefficients, can be obtained by said theory,

wherein said weights are assigned to said digital watermark sequence according to values of said distribution function.

64. (Original) An apparatus for reading digital watermark data from digital data contents in which each bit of digital watermark data is embedded a plurality of times, said apparatus comprising:

means for receiving digital data contents;

means for reading a digital watermark sequence from said digital data contents;

means for performing soft decision in code theory by assigning weights to said digital watermark sequence with a weighting function; and

means for reconstituting and generating digital watermark data from said digital watermark sequence.

65. (Original) The apparatus as claimed in claim 64, wherein said weighting function is a distribution function obtained by means comprising:

means for dividing first digital data contents into one or a plurality of first block data;

means for dividing second digital data contents into one or a plurality of second block data, said second digital data contents being obtained by manipulating said first digital data contents with a predetermined manipulation method;

means for transforming said first block data and said second block data into first frequency coefficients and second frequency coefficients respectively by applying an orthogonal transform; and

means for obtaining distribution of difference values between said first frequency coefficients and said second frequency coefficients, said distribution function being an

approximation of said distribution,

wherein said weights are assigned to said digital watermark sequence according to values of said distribution function.

66. (Original) The apparatus as claimed in claim 61, wherein said weighting function is a distribution function obtained by means comprising:

means for dividing first digital data contents into one or a plurality of first block data;

means for dividing second digital data contents into one or a plurality of second block data, said second digital data contents being obtained by manipulating said first digital data contents with a predetermined manipulation method;

means for transforming said first block data and said second block data into first frequency coefficients and second frequency coefficients respectively by applying an orthogonal transform; and

means for obtaining said distribution function on the basis of a theory if distribution of difference values between said first frequency coefficients and said second frequency coefficients, can be obtained by said theory,

wherein said weights are assigned to said digital watermark sequence according to values of said distribution function.

67. (Original) An integrated circuit for reading digital watermark data from digital data contents in which each bit of digital watermark data is embedded a plurality of times, said integrated circuit comprising:

means for receiving digital data contents;

means for reading a digital watermark sequence from said digital data contents;

means for performing soft decision in code theory by assigning weights to said digital watermark sequence with a weighting function; and

means for reconstituting and generating digital watermark data from said digital watermark sequence.

68. (Original) The integrated circuit as claimed in claim 67, wherein said weighting function is a distribution function obtained by means comprising:

means for dividing first digital data contents into one or a plurality of first block data;

means for dividing second digital data contents into one or a plurality of second block data, said second digital data contents being obtained by manipulating said first digital data contents with a predetermined manipulation method;

means for transforming said first block data and said second block data into first frequency coefficients and second frequency coefficients respectively by applying an orthogonal transform; and

means for obtaining distribution of difference values between said first frequency coefficients and said second frequency coefficients, said distribution function being an approximation of said distribution,

wherein said weights are assigned to said digital watermark sequence according to values of said distribution function.

69. (Original) The integrated circuit as claimed in claim 67, wherein said weighting function is a distribution function obtained by means comprising:

means for dividing first digital data contents into one or a plurality of first block data;

means for dividing second digital data contents into one or a plurality of second block data, said second digital data contents being obtained by manipulating said first digital data contents with a predetermined manipulation method;

means for transforming said first block data and said second block data into first frequency coefficients and second frequency coefficients respectively by applying an orthogonal transform; and

means for obtaining said distribution function on the basis of a theory if distribution of difference values between said first frequency coefficients and said second frequency coefficients, can be obtained by said theory, and

wherein said weights are assigned to said digital watermark sequence according to values of said distribution function.

70. (Original) A computer readable medium storing program code for causing a computer system to read digital watermark data from digital data contents in which each bit of digital watermark data is embedded a plurality of times, said computer readable medium comprising:

program code means for receiving digital data contents;

program code means for reading a digital watermark sequence from said digital data

contents;

program code means for performing soft decision in code theory by assigning weights to said digital watermark sequence with a weighting function; and

program code means for reconstituting and generating digital watermark data from said digital watermark sequence.

71. (Original) The computer readable medium as claimed in claim 70, wherein said weighting function is a distribution function obtained by program code means comprising:

program code means for dividing first digital data contents into one or a plurality of first block data;

program code means for dividing second digital data contents into one or a plurality of second block data, said second digital data contents being obtained by manipulating said first digital data contents with a predetermined manipulation method;

program code means for transforming said first block data and said second block data into first frequency coefficients and second frequency coefficients respectively by applying an orthogonal transform; and

program code means for obtaining distribution of difference values between said first frequency coefficients and said second frequency coefficients, said distribution function being an approximation of said distribution,

wherein said weights are assigned to said digital watermark sequence according to values of said distribution function.

72. (Original) The computer readable medium as claimed in claim 70, wherein said weighting function is a distribution function obtained by program code means comprising:

program code means for dividing first digital data contents into one or a plurality of first block data;

program code means for dividing second digital data contents into one or a plurality of second block data, said second digital data contents being obtained by manipulating said first digital data contents with a predetermined manipulation method;

program code means for transforming said first block data and said second block data into first frequency coefficients and second frequency coefficients respectively by applying an orthogonal transform; and

program code means for obtaining said distribution function on the basis of a theory if distribution of difference values between said first frequency coefficients and said second frequency coefficients, can be obtained by said theory, and

wherein said weights are assigned to said digital watermark sequence according to values of said distribution function.